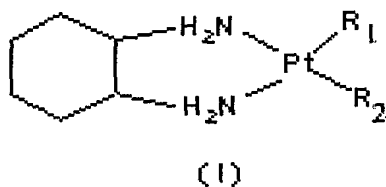
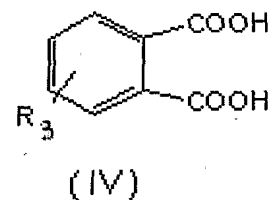
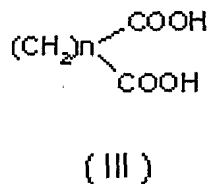
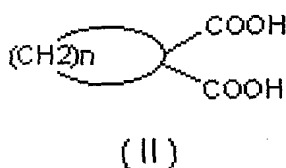


We Claim:

1. A process for the preparation of the preparation of a platinum complex of general formula I

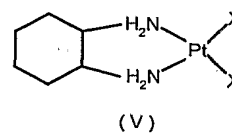
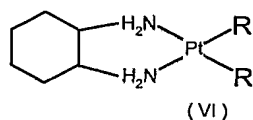


Where in, the conformation of 1,2-diaminocyclohexane is cis, trans-l or trans-d isomer and  $R_1$  and  $R_2$  combinedly make dicarboxylic acid having formulae II, III and IV,



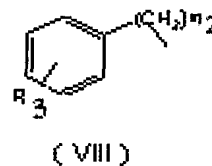
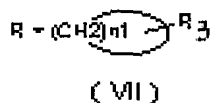
where in, the two carboxylic acid groups are on the same or on vicinal carbon atoms,  $n$  is zero or an integer ranging from 1 to 5 and  $R_3$  is either hydrogen or a substituent with electron withdrawing or electron releasing effects exemplified by alkoxy, halo, and nitro groups which comprises, reacting a compound of formula  $M_2PtX_4$  wherein  $X$  represents halogen atom such as Cl or Br or thiocyanate with (i) 1,2-diaminocyclohexane (ii) source of silver ion selected from a silver compound containing divalent anion in presence of a corresponding carboxylic acid of formula II

or III or IV to get the compound of formula I, purifying the said compound by treating with alkali metal iodide and isolating the title compound by any conventional methods.



2. In a process for the preparation of Platinum complex of a compound of formula I as defined in claim 1, (i) a compound having formula V obtained through a reaction of a compound  $M_2PtX_4$ , where X has the same meaning as given above with 1,2-diaminocyclohexane in water is added to a solution of silver ion and dicarboxylic acid of formula II or III or IV (ii) the reaction mixture is filtered out on completion of the reaction, (iii) the filtrate thus obtained is reacted with alkali metal iodide, followed by filtering and isolating the title compound from the filtrate by known methods.

3. In a process for the preparation of Platinum complex of a compound of formula I as defined in claim 1, (i) a compound having formula V obtained through a reaction of a compound  $M_2PtX_4$ , where X has the meaning as given above with 1,2-diaminocyclohexane in water is added to a solution of silver ion and corresponding carboxylic acid to get bis carboxylato-**trans-I**-1,2- diaminocyclohexaneplatinum (II) of formula VI, wherein, R can be aliphatic carboxylic acid either straight chain or branched or sulphonic acid, saturated or unsaturated with 1 to 5 carbon atoms, or alicyclic monocarboxylic acid of formula VII,



wherein,  $n_1$  is an integer ranging from 2 to 8 and  $R_3$  has the same meaning as defined in claim 1 or an aromatic carboxylic or sulphonic acid of formula VIII wherein,  $n_2$  is in the range of 1 to 3 carbon atoms, saturated or unsaturated and  $R_3$  has the same meaning as given above (ii) the reaction mixture is filtered out on completion of the reaction, the filtrate thus obtained is reacted with alkali metal salt of corresponding dicarboxylic acid followed by isolating the title compound by any conventional methods.

4. In a process for the preparation of Platinum complex of a compound of formula I as defined in claim 1, (i) 1,2-diaminocyclohexane in water is added to alkali metal tetraiodoplatinate obtained through reaction of a compound  $M_2PtX_4$ , where X has the meaning as given above with alkali metal iodide to obtain an intermediate, cis-diiodo1,2-diaminocyclohexaneplatinum(II) of formula V ( $X=I$ ), the said iodo compound is reacted with a solution of silver ion and corresponding dicarboxylic acid of formula II or III or IV followed by isolating the title compound, which is also represented by oxaliplatin by any conventional methods.

5. In a process for the preparation of Platinum complex of a compound of formula I as defined in claim 1, (i) 1,2-diaminocyclohexane in water is added to alkali metal tetraiodoplatinate obtained through reaction of a compound  $M_2PtX_4$ , where X has the meaning as given above with alkali metal iodide to obtain an intermediate, cis-diiodo-1,2-diaminocyclohexaneplatinum(II) of formula V ( $X=I$ ), (ii) the said iodo compound is reacted with a solution of silver ion and corresponding carboxylic acid of formula VII or VIII to get bis carboxylato-trans-I-1,2- diaminocyclohexaneplatinum (II) of formula VI, which has been defined above (iii) ) the reaction mixture is filtered out on completion of the reaction, the filtrate thus obtained is reacted with alkali metal salt of corresponding dicarboxylic acid followed by isolating the title compound by any conventional methods.

6. A process as claimed in claims 1 to 5 wherein, in the  $M_2PtX_4$  M represents sodium or potassium preferably potassium and X represents Cl or Br or thiocyanate preferably Cl or Br more preferably Cl.

7. A process as claimed in claims 1 to 5 wherein, Source of silver ion selected from a silver compound containing divalent anion, the divalent anion represents carbonate or oxide, preferably oxide.

8. A process as claimed in claims 1 to 5 wherein, the carboxylic acid employed is selected from aliphatic carboxylic acids straight chain or with branching, preferably straight chain aliphatic carboxylic acid, more preferably straight chain aliphatic carboxylic acid with 1-3 carbon atoms, even more preferably acetic acid.

9. A process as claimed in claims 1 to 5 wherein, the sulphonic acid employed is selected from aliphatic sulphonic acids straight chain or with branching, preferably straight chain aliphatic sulphonic acid, more preferably straight chain aliphatic sulphonic acid with 1-3 carbon atoms, even more preferably methanesulphonic acid.
10. A process as claimed in claims 1 to 5 wherein, the alkali metal iodide is sodium or potassium iodide.
11. A process as claimed in claims 1 to 5 wherein, the alkali metal salt of dicarboxylic acid employed is selected from aliphatic, alicyclic or aromatic dicarboxylic acid, preferably from aliphatic, more preferably from aliphatic with 2 to 5 carbon atoms, even more preferably from aliphatic with 2 carbon atoms.
12. A process as claimed in claims 1 to 5 wherein, the ratio of (a)  $M_2PtX_4$  to 1,2-diaminocyclohexane ranges from 1 to 1.2, preferably 1 to 1; (b) source of silver ion to platinum (II) complex of formula V ranges from 1 to 2.2, preferably 1 to 2; (c) carboxylic acid to silver ion varies from 1 to 1.2; (d) alkali metal salts of dicarboxylic acid to bis carboxylato-1,2-diaminocyclohexaneplatinum (II) of formula VI, ranges between 0.7 to 1.2 and (e) diiodo compound of formula V ( $X = I$ ), to silver ion in carboxylic acid ranges from 1 to 1.
13. A process as claimed in preceding claims wherein, the reaction between (a)  $M_2PtX_4$  & 1,2-diaminocyclohexane is conducted at a temperature of 15 to 40° C, preferably 25

to 30° C; (b) of source of silver ion and cis- platinum (II) complex of formula V is performed at 40 to 80° C, preferably 60 to 70° C; (c) between alkali metal salts of dicarboxylic acid and bis carboxylato-1,2- diaminocyclohexaneplatinum (II) of formula VI, is effected at a temperature in the range of 50 and 60° C and (d) that in between diiodo compound of formula V and silver ion in carboxylic acid is carried out at 60 to 70° C.

14. A process as claimed in preceding claims wherein, the reaction (a) as intended to be claimed in claim 1 (b) between  $M_2PtX_4$  & 1,2-diaminocyclohexane (c) between a source of silver ion and cis- platinum (II) complex of formula V (d) between alkali metal salts of dicarboxylic acid and bis carboxylato-1,2- diaminocyclohexaneplatinum (II) of formula VI, and (e) that in between diiodo compound of formula V and silver ion in carboxylic acid is effected for at least a period of two hours, preferably for 5 to 10, more preferably for a period of 5 to 7 hours.

15. A process as claimed in preceding claims wherein, the isolation of the title compound is effected by filtration, centrifugation, evaporation followed by drying so as to get a product with loss on drying (LOD) not exceeding 0.5%.

16. A process as claimed in preceding claims wherein, the drying is carried out at a temperature less than 100° C preferably under vacuum.

17. A process for the preparation of the preparation of a platinum complex of general formula I as defined in claim 1 is substantially herein described with reference to examples and drawings.